

**Appendix A.8****1. Effective (Isotropic) Radiated Power Output Data****1.1 Test Result****1.1.1 B5_1.4MHz_ERP**

Band: 5 / Bandwidth: 1.4MHz / NTN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	824.7	1	0	22.09	1.40	21.34	<=38.45	Pass
			2	22.14	1.40	21.39	<=38.45	Pass
			5	22.03	1.40	21.28	<=38.45	Pass
		3	0	21.87	1.40	21.12	<=38.45	Pass
			2	21.95	1.40	21.20	<=38.45	Pass
			3	21.79	1.40	21.04	<=38.45	Pass
		6	0	20.91	1.40	20.16	<=38.45	Pass
	836.5	1	0	21.94	1.40	21.19	<=38.45	Pass
			2	22.22	1.40	21.47	<=38.45	Pass
			5	21.93	1.40	21.18	<=38.45	Pass
		3	0	21.99	1.40	21.24	<=38.45	Pass
			2	21.95	1.40	21.20	<=38.45	Pass
			3	21.97	1.40	21.22	<=38.45	Pass
		6	0	20.83	1.40	20.08	<=38.45	Pass
	848.3	1	0	21.94	1.40	21.19	<=38.45	Pass
			2	22.02	1.40	21.27	<=38.45	Pass
			5	21.81	1.40	21.06	<=38.45	Pass
		3	0	21.78	1.40	21.03	<=38.45	Pass
			2	21.87	1.40	21.12	<=38.45	Pass
			3	21.87	1.40	21.12	<=38.45	Pass
		6	0	20.91	1.40	20.16	<=38.45	Pass
16QAM	824.7	1	0	20.45	1.40	19.70	<=38.45	Pass
			2	20.56	1.40	19.81	<=38.45	Pass
			5	20.63	1.40	19.88	<=38.45	Pass
		3	0	20.84	1.40	20.09	<=38.45	Pass
			2	20.92	1.40	20.17	<=38.45	Pass
			3	20.89	1.40	20.14	<=38.45	Pass
		6	0	19.74	1.40	18.99	<=38.45	Pass
	836.5	1	0	21.04	1.40	20.29	<=38.45	Pass
			2	21.01	1.40	20.26	<=38.45	Pass
			5	20.94	1.40	20.19	<=38.45	Pass
		3	0	20.87	1.40	20.12	<=38.45	Pass
			2	20.90	1.40	20.15	<=38.45	Pass



Report No.: SUCR260800084009

Page: 2 of 23

			3	20.97	1.40	20.22	<=38.45	Pass
		6	0	19.77	1.40	19.02	<=38.45	Pass
	848.3	1	0	21.05	1.40	20.30	<=38.45	Pass
			2	20.98	1.40	20.23	<=38.45	Pass
			5	21.06	1.40	20.31	<=38.45	Pass
		3	0	20.92	1.40	20.17	<=38.45	Pass
			2	20.97	1.40	20.22	<=38.45	Pass
			3	20.93	1.40	20.18	<=38.45	Pass
		6	0	20.01	1.40	19.26	<=38.45	Pass
	Note1: ERP=Conducted Power+Antenna Gain-2.15							

1.1.2 B5_3MHz_ERP

Band: 5 / Bandwidth: 3MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	825.5	1	0	21.89	1.40	21.14	<=38.45	Pass
			7	22.39	1.40	21.64	<=38.45	Pass
			14	22.01	1.40	21.26	<=38.45	Pass
		8	0	20.87	1.40	20.12	<=38.45	Pass
			4	20.90	1.40	20.15	<=38.45	Pass
			7	20.92	1.40	20.17	<=38.45	Pass
		15	0	20.80	1.40	20.05	<=38.45	Pass
	836.5	1	0	21.75	1.40	21.00	<=38.45	Pass
			7	22.14	1.40	21.39	<=38.45	Pass
			14	21.91	1.40	21.16	<=38.45	Pass
		8	0	20.84	1.40	20.09	<=38.45	Pass
			4	20.96	1.40	20.21	<=38.45	Pass
			7	20.85	1.40	20.10	<=38.45	Pass
		15	0	20.86	1.40	20.11	<=38.45	Pass
	847.5	1	0	21.96	1.40	21.21	<=38.45	Pass
			7	22.03	1.40	21.28	<=38.45	Pass
			14	22.00	1.40	21.25	<=38.45	Pass
		8	0	21.00	1.40	20.25	<=38.45	Pass
			4	20.96	1.40	20.21	<=38.45	Pass
			7	20.95	1.40	20.20	<=38.45	Pass
		15	0	20.99	1.40	20.24	<=38.45	Pass
16QAM	825.5	1	0	20.59	1.40	19.84	<=38.45	Pass
			7	20.62	1.40	19.87	<=38.45	Pass
			14	20.44	1.40	19.69	<=38.45	Pass
		8	0	19.57	1.40	18.82	<=38.45	Pass
			4	19.72	1.40	18.97	<=38.45	Pass
			7	19.59	1.40	18.84	<=38.45	Pass



Report No.: SUCR260800084009

Page: 3 of 23

	836.5	15	0	20.12	1.40	19.37	<=38.45	Pass
		1	0	20.43	1.40	19.68	<=38.45	Pass
			7	20.63	1.40	19.88	<=38.45	Pass
			14	20.58	1.40	19.83	<=38.45	Pass
		8	0	19.60	1.40	18.85	<=38.45	Pass
			4	19.66	1.40	18.91	<=38.45	Pass
			7	19.54	1.40	18.79	<=38.45	Pass
		15	0	19.85	1.40	19.10	<=38.45	Pass
	847.5	1	0	20.41	1.40	19.66	<=38.45	Pass
			7	20.72	1.40	19.97	<=38.45	Pass
			14	20.47	1.40	19.72	<=38.45	Pass
		8	0	20.04	1.40	19.29	<=38.45	Pass
			4	20.10	1.40	19.35	<=38.45	Pass
			7	20.07	1.40	19.32	<=38.45	Pass
		15	0	20.21	1.40	19.46	<=38.45	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

1.1.3 B5_5MHz_ERP

Band: 5 / Bandwidth: 5MHz / NTNV								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	826.5	1	0	21.78	1.40	21.03	<=38.45	Pass
			13	22.08	1.40	21.33	<=38.45	Pass
			24	21.80	1.40	21.05	<=38.45	Pass
		12	0	20.82	1.40	20.07	<=38.45	Pass
			6	20.87	1.40	20.12	<=38.45	Pass
			13	20.80	1.40	20.05	<=38.45	Pass
		25	0	20.77	1.40	20.02	<=38.45	Pass
	836.5	1	0	21.65	1.40	20.90	<=38.45	Pass
			13	22.01	1.40	21.26	<=38.45	Pass
			24	21.77	1.40	21.02	<=38.45	Pass
		12	0	20.90	1.40	20.15	<=38.45	Pass
			6	20.96	1.40	20.21	<=38.45	Pass
			13	20.81	1.40	20.06	<=38.45	Pass
		25	0	20.89	1.40	20.14	<=38.45	Pass
	846.5	1	0	21.88	1.40	21.13	<=38.45	Pass
			13	22.10	1.40	21.35	<=38.45	Pass
			24	21.96	1.40	21.21	<=38.45	Pass
		12	0	20.88	1.40	20.13	<=38.45	Pass
			6	20.89	1.40	20.14	<=38.45	Pass
			13	20.96	1.40	20.21	<=38.45	Pass
		25	0	20.84	1.40	20.09	<=38.45	Pass



Report No.: SUCR260800084009

Page: 4 of 23

16QAM	826.5	1	0	20.57	1.40	19.82	<=38.45	Pass
			13	20.57	1.40	19.82	<=38.45	Pass
			24	20.34	1.40	19.59	<=38.45	Pass
		12	0	19.77	1.40	19.02	<=38.45	Pass
			6	19.85	1.40	19.10	<=38.45	Pass
			13	19.77	1.40	19.02	<=38.45	Pass
		25	0	19.73	1.40	18.98	<=38.45	Pass
	836.5	1	0	20.26	1.40	19.51	<=38.45	Pass
			13	20.47	1.40	19.72	<=38.45	Pass
			24	20.30	1.40	19.55	<=38.45	Pass
		12	0	19.62	1.40	18.87	<=38.45	Pass
			6	19.94	1.40	19.19	<=38.45	Pass
			13	19.66	1.40	18.91	<=38.45	Pass
		25	0	19.95	1.40	19.20	<=38.45	Pass
	846.5	1	0	20.65	1.40	19.90	<=38.45	Pass
			13	20.74	1.40	19.99	<=38.45	Pass
			24	20.43	1.40	19.68	<=38.45	Pass
		12	0	19.80	1.40	19.05	<=38.45	Pass
			6	19.84	1.40	19.09	<=38.45	Pass
			13	19.91	1.40	19.16	<=38.45	Pass
		25	0	19.97	1.40	19.22	<=38.45	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

1.1.4 B5_10MHz_ERP

Band: 5 / Bandwidth: 10MHz / NTN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	829	1	0	21.99	1.40	21.24	<=38.45	Pass
			25	22.12	1.40	21.37	<=38.45	Pass
			49	22.03	1.40	21.28	<=38.45	Pass
		25	0	20.88	1.40	20.13	<=38.45	Pass
			13	20.89	1.40	20.14	<=38.45	Pass
			25	20.85	1.40	20.10	<=38.45	Pass
		50	0	20.80	1.40	20.05	<=38.45	Pass
	836.5	1	0	22.02	1.40	21.27	<=38.45	Pass
			25	22.14	1.40	21.39	<=38.45	Pass
			49	21.94	1.40	21.19	<=38.45	Pass
		25	0	20.89	1.40	20.14	<=38.45	Pass
			13	20.96	1.40	20.21	<=38.45	Pass
			25	20.86	1.40	20.11	<=38.45	Pass
		50	0	20.91	1.40	20.16	<=38.45	Pass
	844	1	0	21.87	1.40	21.12	<=38.45	Pass

			25	22.20	1.40	21.45	<=38.45	Pass
			49	21.99	1.40	21.24	<=38.45	Pass
16QAM	829	25	0	20.86	1.40	20.11	<=38.45	Pass
			13	20.81	1.40	20.06	<=38.45	Pass
			25	20.84	1.40	20.09	<=38.45	Pass
		50	0	20.82	1.40	20.07	<=38.45	Pass
			0	20.45	1.40	19.70	<=38.45	Pass
			25	20.70	1.40	19.95	<=38.45	Pass
	836.5	1	49	20.55	1.40	19.80	<=38.45	Pass
			0	19.98	1.40	19.23	<=38.45	Pass
			13	20.00	1.40	19.25	<=38.45	Pass
		25	25	19.95	1.40	19.20	<=38.45	Pass
			0	19.78	1.40	19.03	<=38.45	Pass
			0	20.52	1.40	19.77	<=38.45	Pass
		1	25	20.68	1.40	19.93	<=38.45	Pass
			49	20.29	1.40	19.54	<=38.45	Pass
			0	19.91	1.40	19.16	<=38.45	Pass
		25	13	20.13	1.40	19.38	<=38.45	Pass
			25	19.83	1.40	19.08	<=38.45	Pass
			0	19.95	1.40	19.20	<=38.45	Pass
	844	1	0	21.08	1.40	20.33	<=38.45	Pass
			25	20.73	1.40	19.98	<=38.45	Pass
			49	20.52	1.40	19.77	<=38.45	Pass
		25	0	19.91	1.40	19.16	<=38.45	Pass
			13	20.08	1.40	19.33	<=38.45	Pass
			25	19.90	1.40	19.15	<=38.45	Pass
		50	0	19.89	1.40	19.14	<=38.45	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

2. Frequency Stability

2.1 Test Result

2.1.1 B5_10MHz

Band: 5 / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	836.5	50	0	20	LV	2.400	0.0029	-2.5 to 2.5	Pass
					NV	2.100	0.0025	-2.5 to 2.5	Pass
					HV	-0.900	-0.0011	-2.5 to 2.5	Pass
				-30	NV	0.800	0.0010	-2.5 to 2.5	Pass
				-20	NV	-1.000	-0.0012	-2.5 to 2.5	Pass



Report No.: SUCR260800084009

Page: 6 of 23

				-10	NV	1.800	0.0022	-2.5 to 2.5	Pass
				0	NV	1.300	0.0016	-2.5 to 2.5	Pass
				10	NV	1.200	0.0014	-2.5 to 2.5	Pass
				30	NV	-1.000	-0.0012	-2.5 to 2.5	Pass
				40	NV	1.400	0.0017	-2.5 to 2.5	Pass
				50	NV	-0.700	-0.0008	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band5_OBW

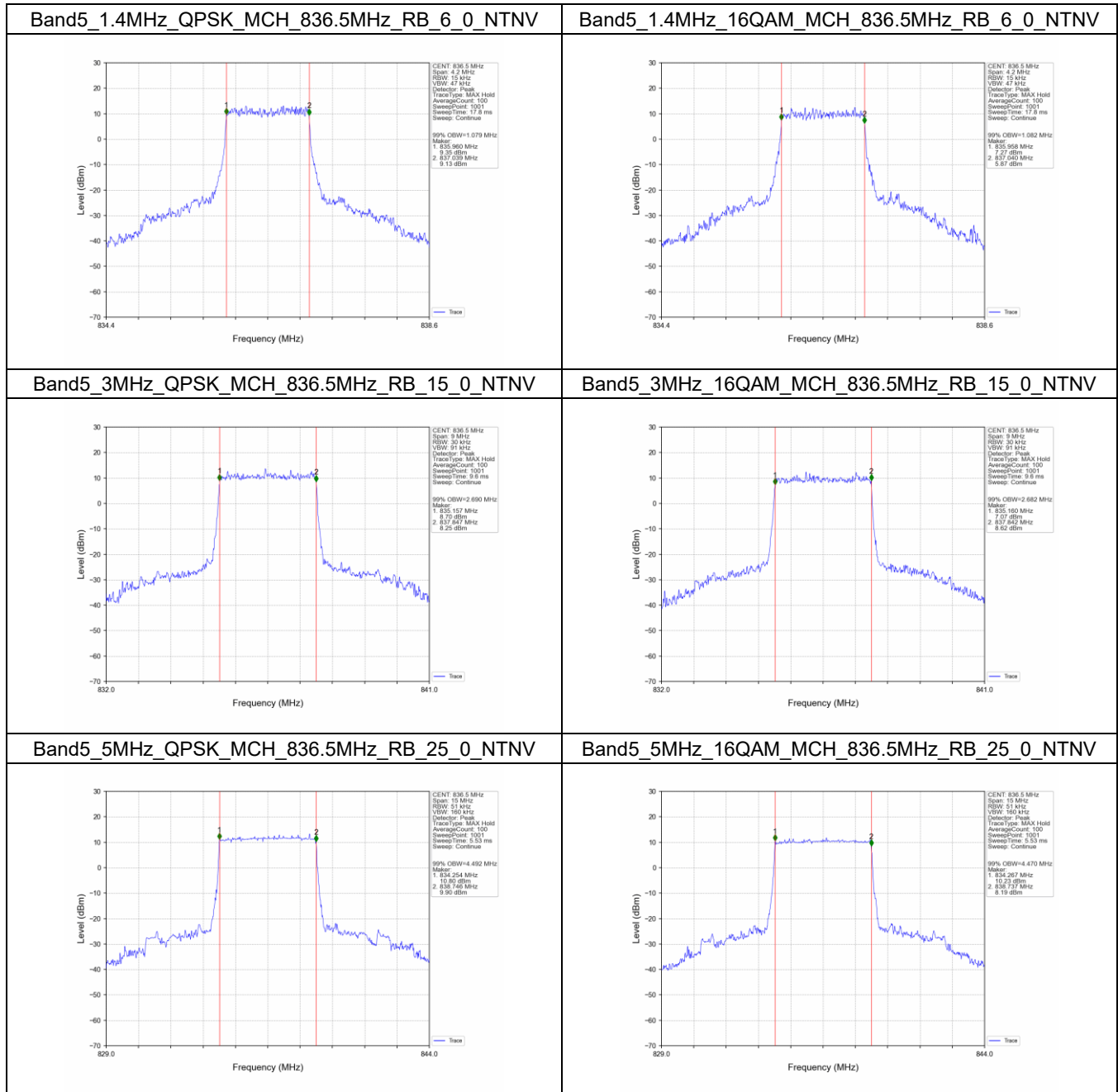
Band: 5 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	836.5	6	0	1.079	/	Pass
	16QAM	836.5	6	0	1.082	/	Pass
3	QPSK	836.5	15	0	2.690	/	Pass
	16QAM	836.5	15	0	2.682	/	Pass
5	QPSK	836.5	25	0	4.492	/	Pass
	16QAM	836.5	25	0	4.470	/	Pass
10	QPSK	836.5	50	0	8.962	/	Pass
	16QAM	836.5	50	0	8.968	/	Pass

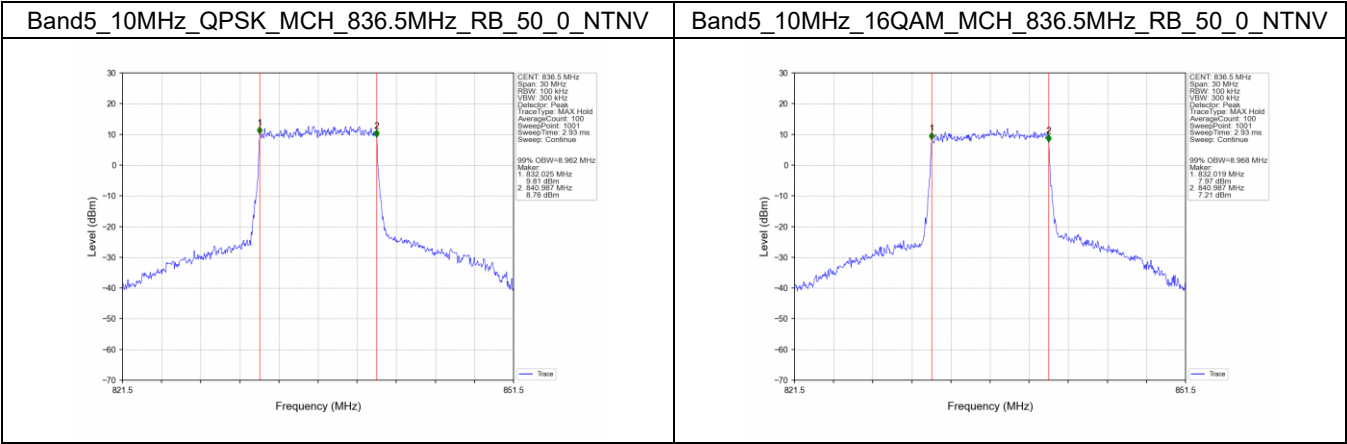
3.1.2 Band5_XDB

Band: 5 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
1.4	QPSK	836.5	6	0	1.246	/	Pass
	16QAM	836.5	6	0	1.257	/	Pass
3	QPSK	836.5	15	0	2.910	/	Pass
	16QAM	836.5	15	0	2.915	/	Pass
5	QPSK	836.5	25	0	4.899	/	Pass
	16QAM	836.5	25	0	4.909	/	Pass
10	QPSK	836.5	50	0	9.754	/	Pass
	16QAM	836.5	50	0	9.660	/	Pass

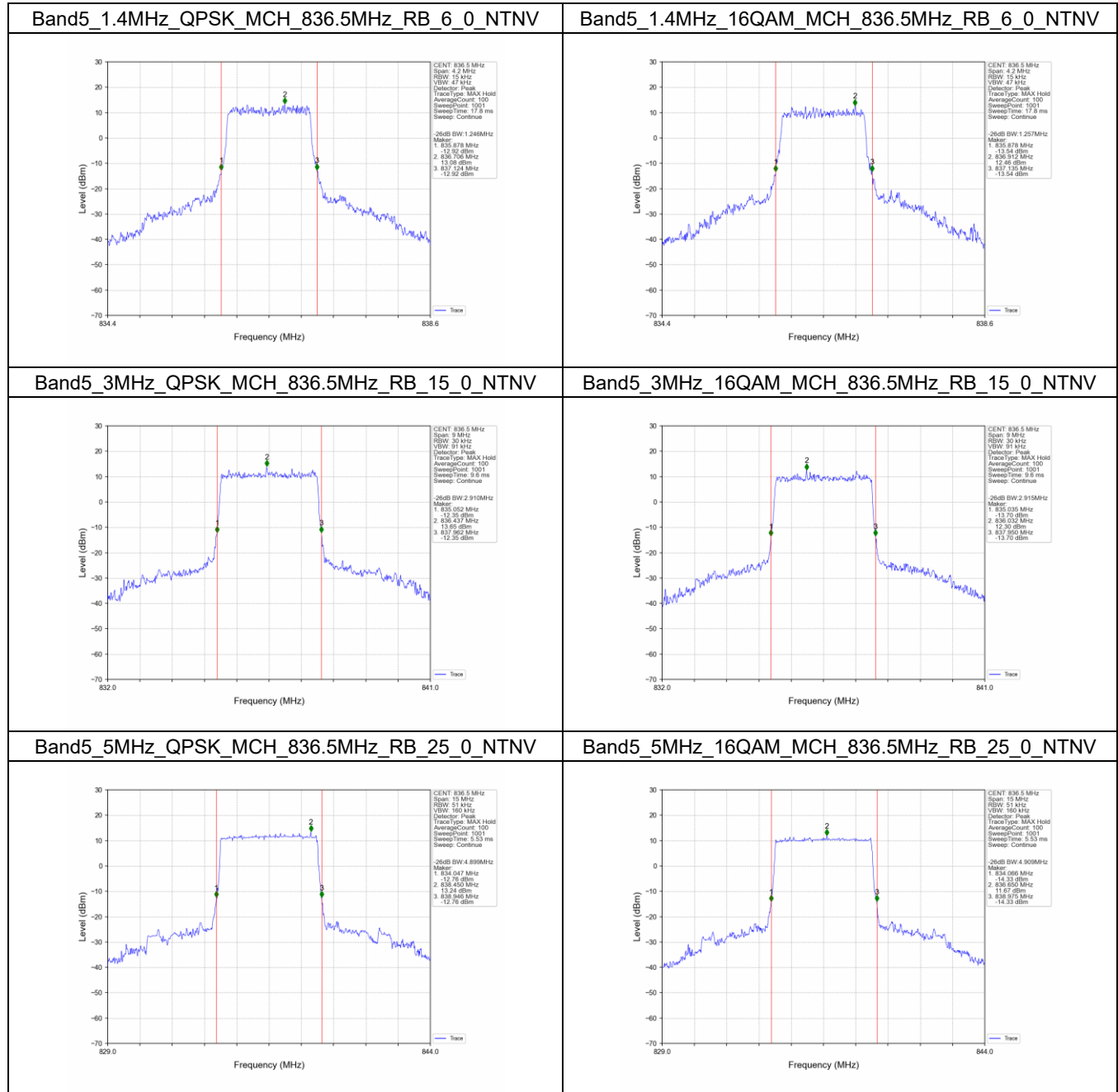
3.2 Test Graph

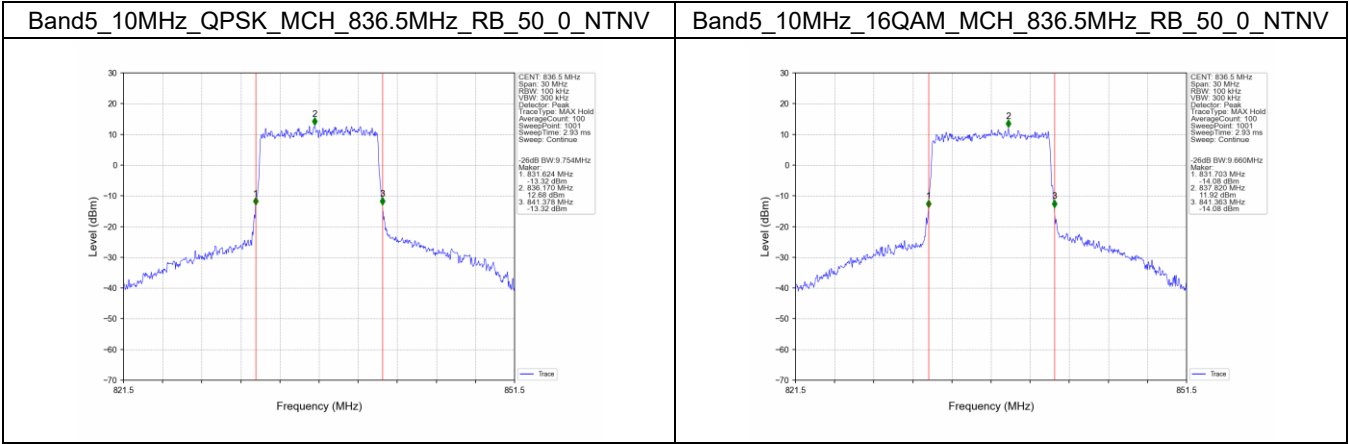
3.2.1 Band5_OBW





3.2.2 Band5_XDB







Report No.: SUCR260800084009
Page: 11 of 23

4. Peak-Average Ratio

4.1 Test Result

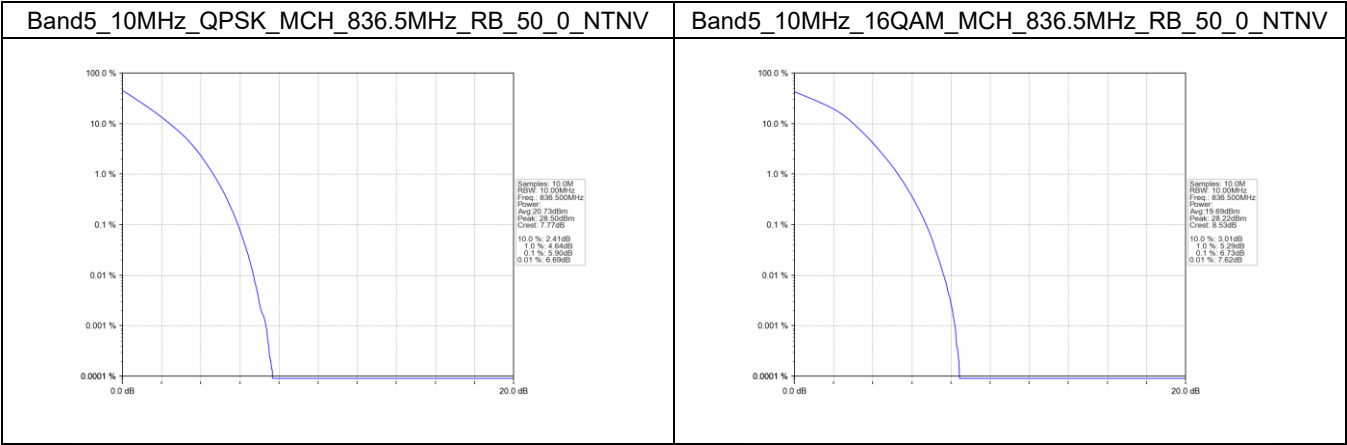
4.1.1 B5_10MHz

Band: 5 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	836.5	50	0	5.90	<=13	Pass
16QAM	836.5	50	0	6.73	<=13	Pass



4.2 Test Graph

4.2.1 B5_10MHz





5. Spurious Emission

5.1 Test Result

5.1.1 B5_1.4MHz

Band: 5 / Bandwidth: 1.4MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	824.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
	848.3	1	0	Refer To Test Graph		Pass
			5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass

5.1.2 B5_3MHz

Band: 5 / Bandwidth: 3MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	825.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
	847.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass

5.1.3 B5_5MHz

Band: 5 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	826.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
	846.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

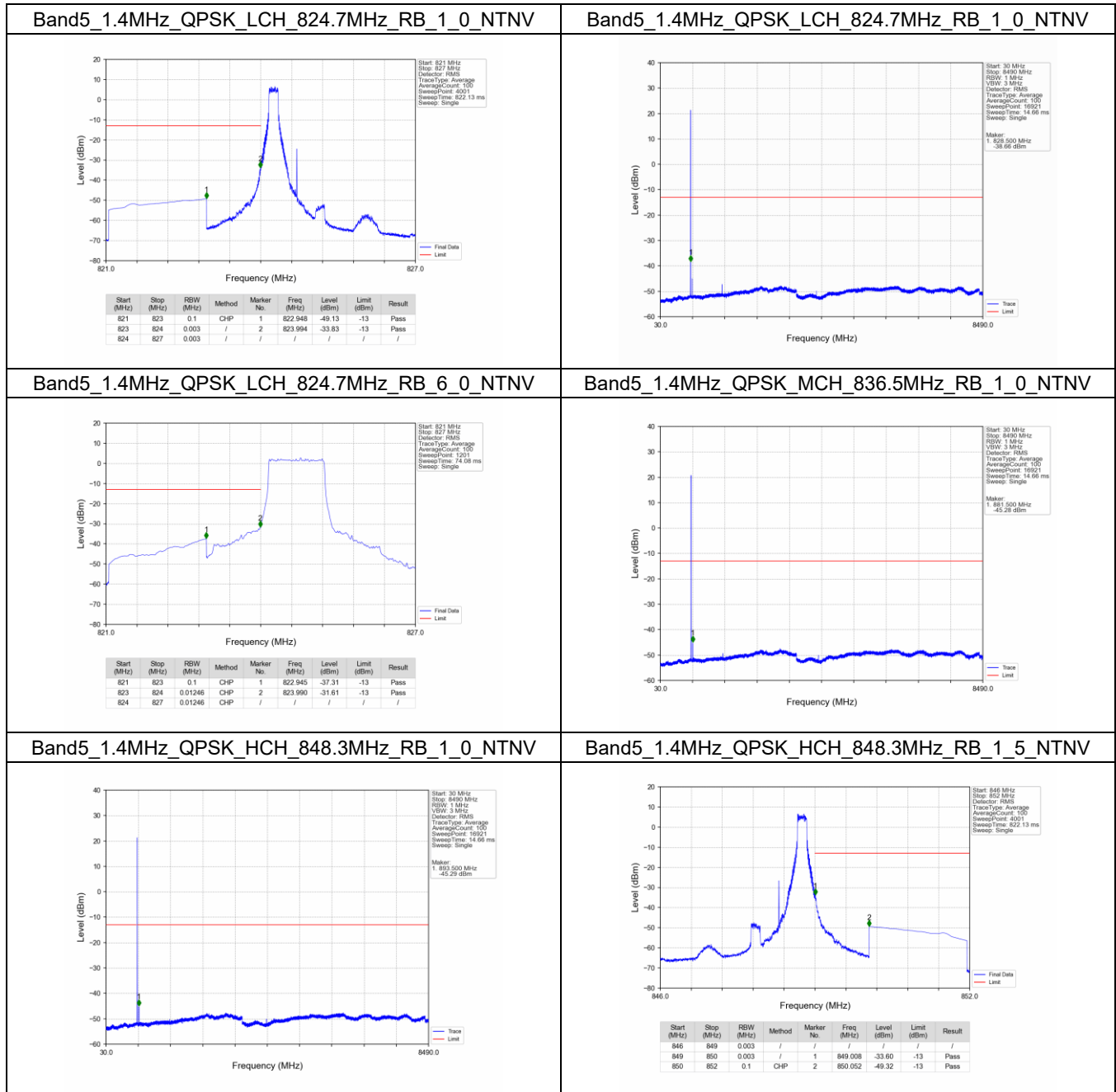
5.1.4 B5_10MHz

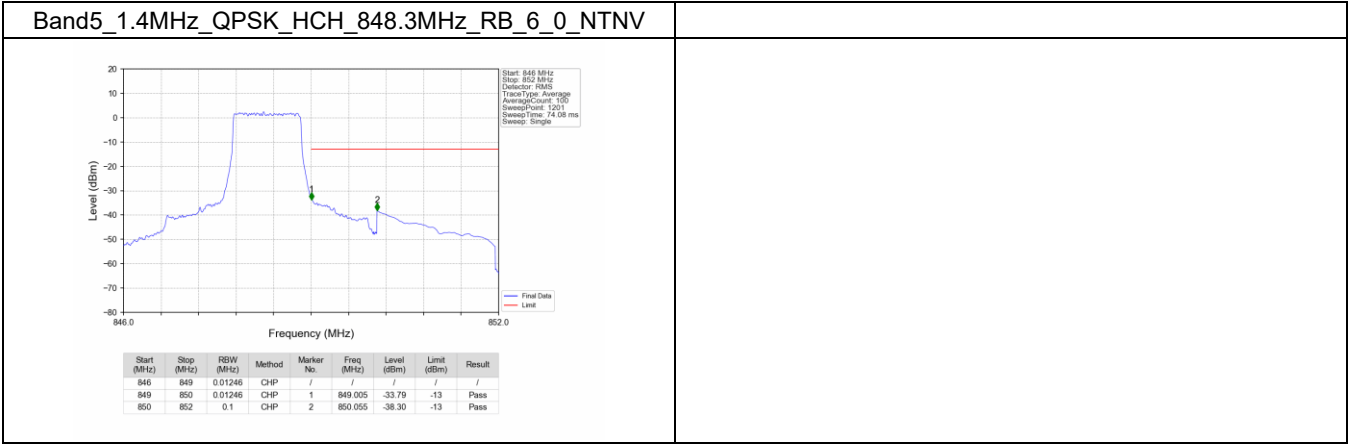


Band: 5 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	829	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
	844	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

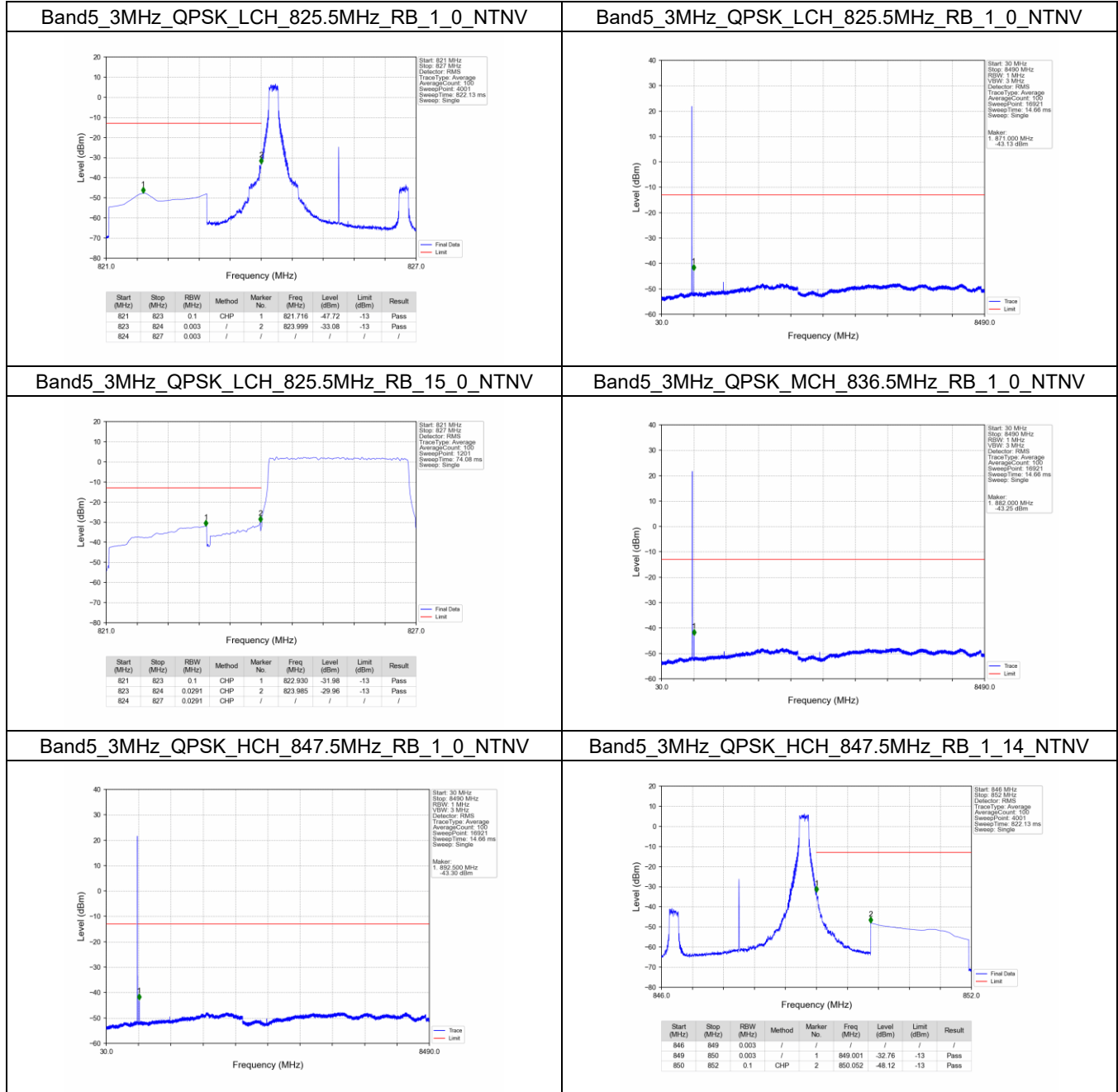
5.2 Test Graph

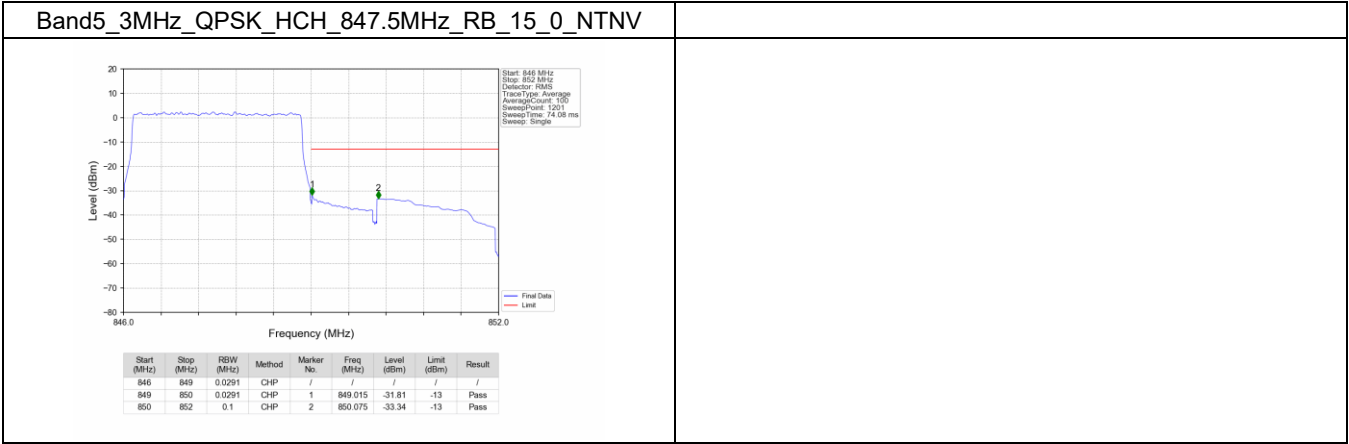
5.2.1 B5_1.4MHz



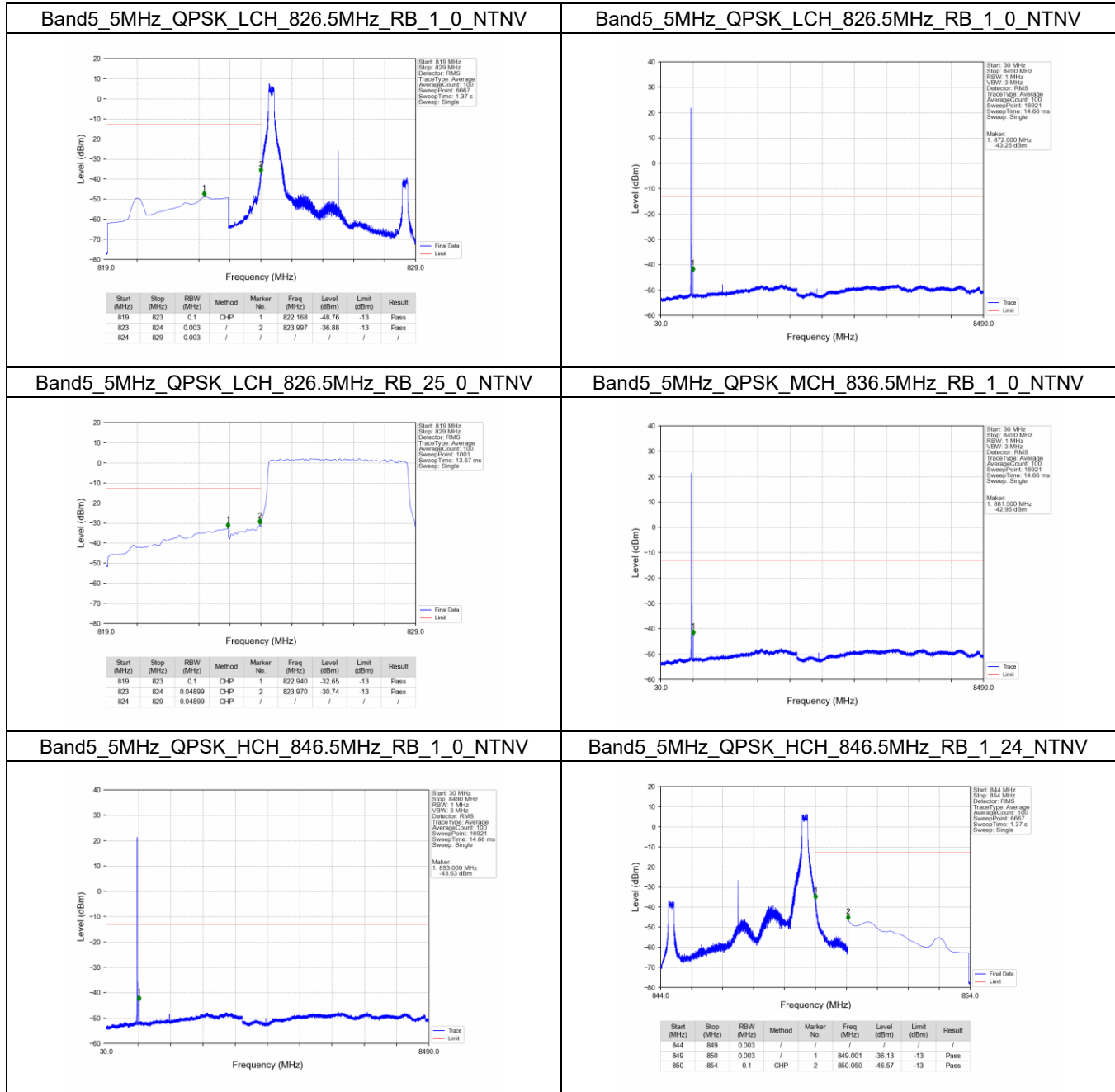


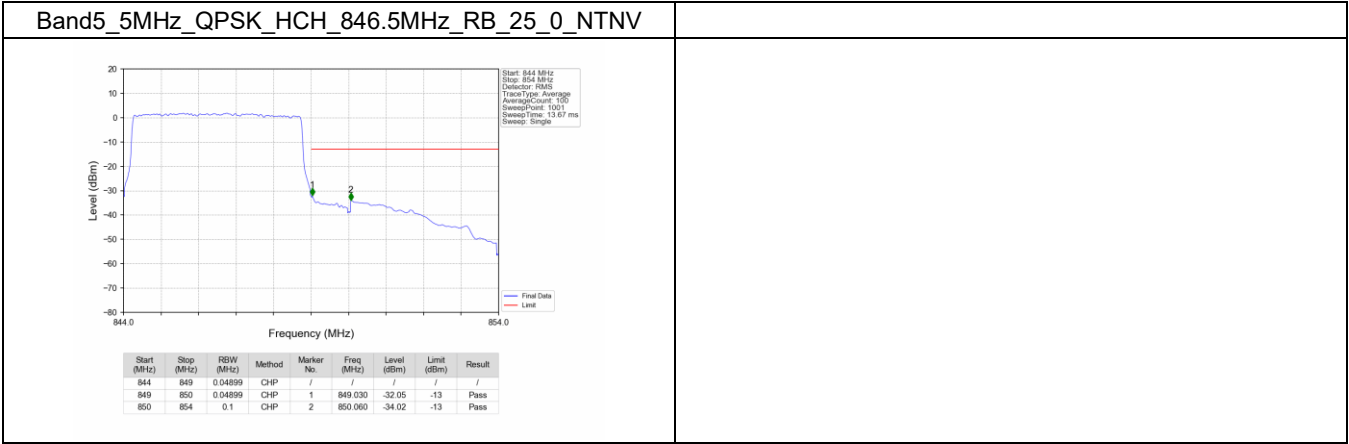
5.2.2 B5_3MHz





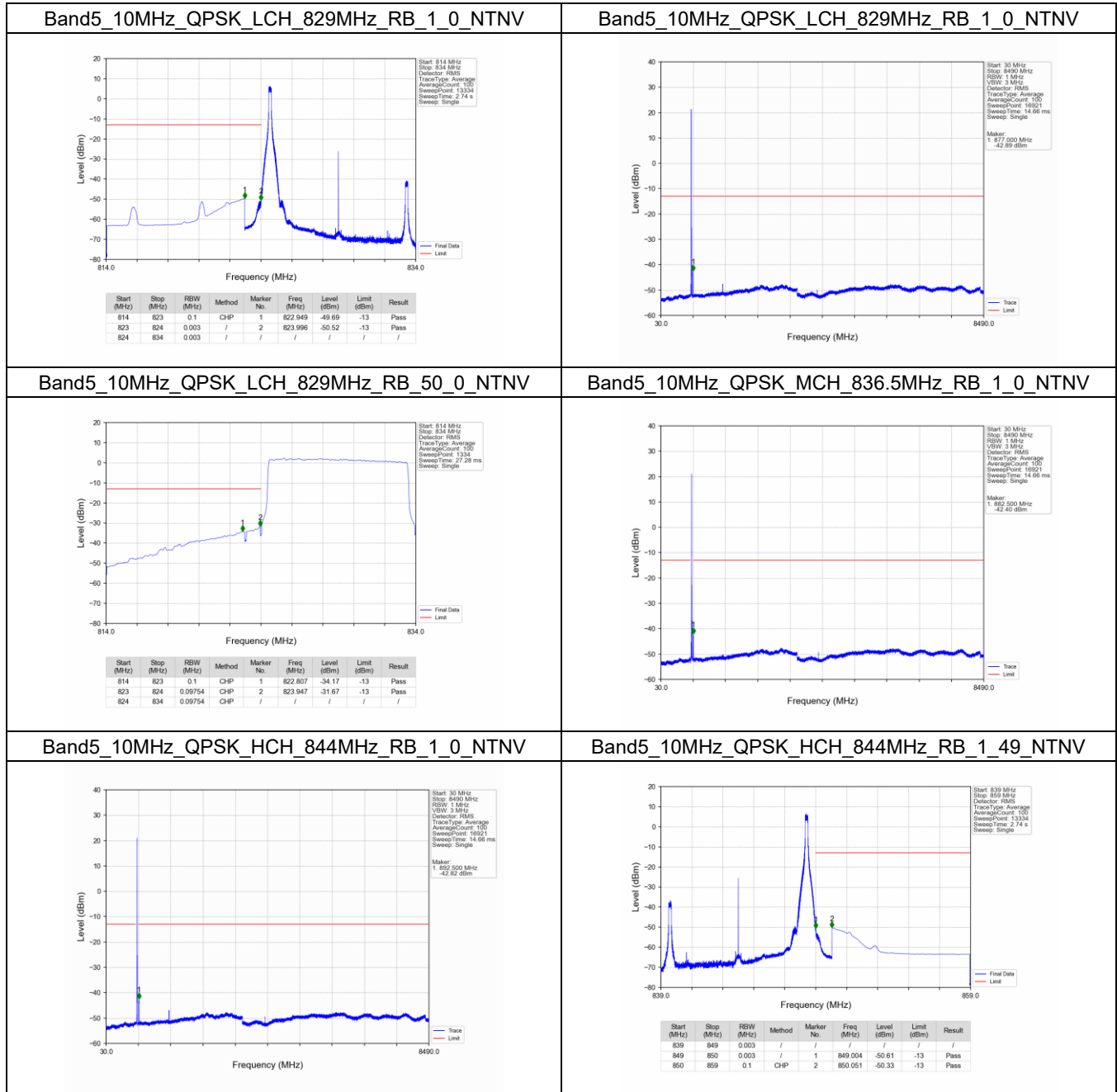
5.2.3 B5_5MHz

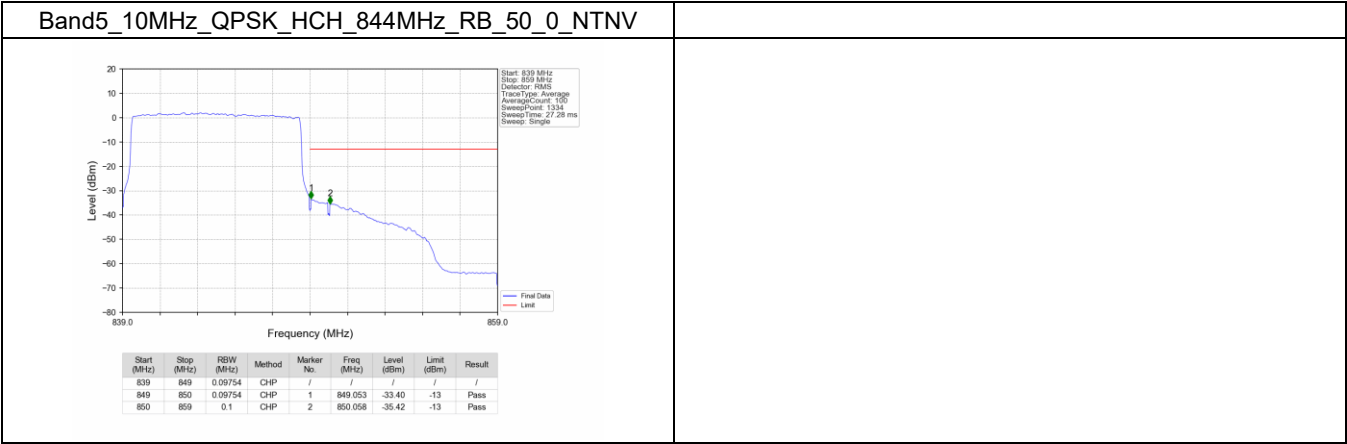






5.2.4 B5_10MHz







6. Frequency Stability (IC)

6.1 Test Result

6.1.1 B5_10MHz

Band: 5 / Bandwidth: 10MHz / NTNV									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	OBW (FL - FH) (MHz)		Limit	Verdict
		Size	Offset			FL	FH		
QPSK	836.5	50	0	20	LV	831.988	840.994	824 to 849	Pass
					NV	831.998	841.004	824 to 849	Pass
					HV	831.999	840.995	824 to 849	Pass
				-30	NV	831.989	841.005	824 to 849	Pass
				-20	NV	831.979	841.008	824 to 849	Pass
				-10	NV	831.977	841.000	824 to 849	Pass
				0	NV	831.979	841.000	824 to 849	Pass
				10	NV	831.974	841.006	824 to 849	Pass
				30	NV	832.004	840.991	824 to 849	Pass
				40	NV	831.996	841.005	824 to 849	Pass
				50	NV	831.997	841.003	824 to 849	Pass

---End of Attachment---